BERETTA

# ES 100

Intruzioni per l'uso
Instructions for operation
Mode d'emploi

Illustrations on pages 5, 42, 43

**Caution:** read this manual carefully before handling and loading the gun.

**WARNING:** Always ensure that the safety is fully engaged until ready to fire. A safety is fully engaged only when the safety "off" red marking (ring) is completely covered and when the safety can move no further into the safe position.

# THE COMMANDMENTS OF GUN SAFETY

1) Treat every gun with respect and caution.
2) Keep your eyes on the muzzle. Keep the safety on until ready to shoot.
3) Unload guns when not in use; keep the actions open.
4) Be sure the barrel is clear of obstructions.
5) Be certain of the target at which you are going to fire. Know how to recognise the game you are hunting.
6) Never shoot at a flat surface or water.
7) Never climb a tree or fence or jump a ditch with a loaded gun. Don't take a gun by the barrel.
8) Never point a gun at anything you don't want to shoot. Avoid all horseplay while handling a gun.
9) Store guns and ammunition separately, beyond the reach of children. Guns should always be unloaded.
10) Avoid alcoholic beverages before or during shooting.

**Shooting glasses and earplugs:** shooting glasses are a must; chances of gas, gunpowder and dirt particle blow-back are remote but do exist. Earplugs reduce the chance of temporary or permanent loss of hearing when shooting.
Beretta has designed new special adjustable "safety" and "competition" glasses complete with interchangeable lenses, blinders and visors for optimum performance under varying light conditions.

## Warning

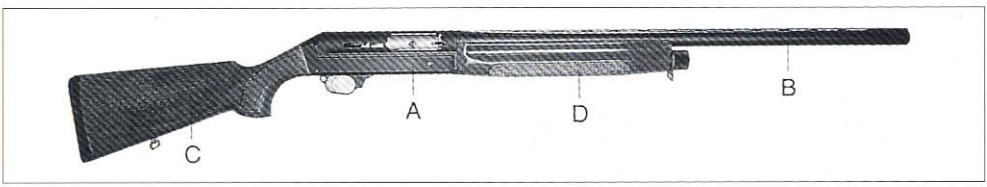
As the interchangeable barrel of the automatic has a serial number different from that stamped on the receiver, it may be necessary, when referring to the gun, to specify also the serial number of the barrel/s.

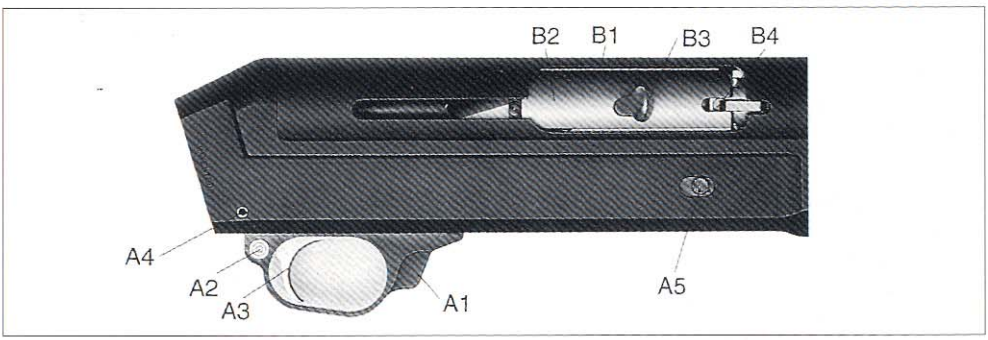
# CONTENTS

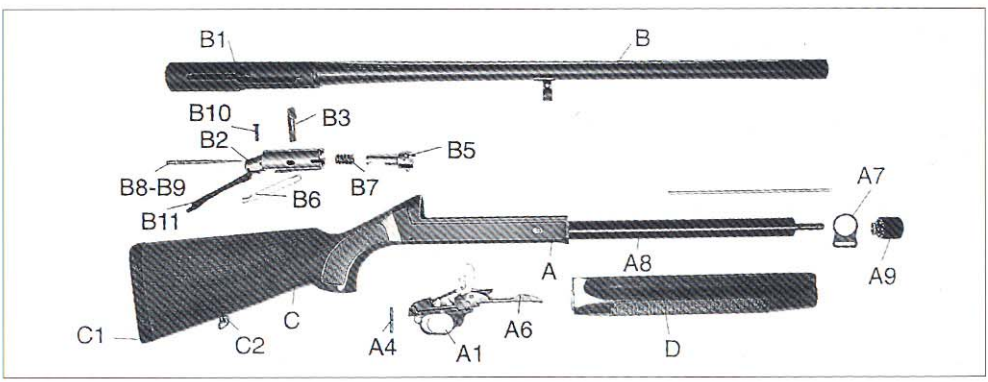

| | Page |
|---|---|
| NOMENCLATURE | 18 |
| TECHNICAL FEATURES AND DATA | 19 |
| FUNCTIONING | 19 |
| OPERATION | 20 |
| DISASSEMBLY | 22 |
| CLEANING AND OILING | 23 |
| MAGAZINE CAPACITY | 23 |
| REASSEMBLY | 24 |
| MOBILCHOKE® TUBES | 24 |

# NOMENCLATURE

A Receiver
A1 Trigger guard assy.
A2 Safety button
A3 Trigger
A4 Trigger guard retaining pin
A5 Cartridge latch button
A6 Carrier
A7 Front swivel
A8 Magazine tube
A9 Fore-end
B Barrel
B1 Receiver
B2 Breech bolt
B3 Cocking handle
B4 Extractor
B5 Locking head
B6 Locking block
B7 Breeck bolt recoil spring
B8 Firing pin
B9 Firing pin spring
B10 Firing pin retaining pin
B11 Connecting rod
C Stock
C1 Interchangeable recoil pad
C2 Stock swivel
D Fore-end



# TECHNICAL FEATURES AND DATA

| | |
|---|---|
| **Gauge** | 12 |
| **Barrel chamber** | 2 3/4" 3" universal |
| **Operation** | Semi-automatic, inertial |
| **Locking system** | Oscillating block |
| **Receiver** | Light alloy |
| **Barrel** | Light alloy Ni, Cr., Mo. steel, inside chromium-plated |
| **Rib** | Ventiled |
| **Front sight** | Metal bead |
| **Safety** | Push button on the trigger guard |
| **Magazine** | 3 rounds (plugged to 2) |
| **Stock, fore-end** | Two versions: Synthetic or Wood (walnut). Checkered, drop. 55 – cast off or cast on. |
| **Length of pull** | 372 mm. with rubber recoil pad 19 mm. thick |
| **Weight (Approx.)** | 3.100 – 3.485 Kg. (According to model, barrel length and equipment) |

# FUNCTIONING

The BERETTA ES100 is a semi-automatic shotgun operated by an inertial system featuring a geometric locking phase driven by an oscillating block.
The locking head is separated from the breech bolt by a spring.
When the gun is fired, the kinetic energy of the recoil drives the breech bolt forward with respect to the firearm.
At this point the bolt loads the spring located between the bolt itself and the locking head.
When the spring releases the absorbed energy it pushes the breech bolt backwards.
When the breech bolt retracts it disengages with its movement through an inclined plane the locking block allowing the withdrawal of the whole locking group and the

functions of case extraction and ejection. The spring load is properly determined to create a delay in the opening phase which takes place after the shot has left the barrel. This delay is necessary to have the firearm function correctly with various ammunitions of different power.
The next cartridge, released from the magazine tube during firing, is now positioned just above the carrier.
When the breech bolt assembly has traveled all the way back it is pushed forward again by the action of the recoil spring. During its forward movement the bolt lifts the carrier which brings the new cartridge to feeding position. Once the round is chambered a specific bolt inclined plane makes the locking block rotate driving it to its proper seat in the receiver.
The firearm has now reached firing position. With the firing of the last round the breech bolt remains automatically opened.

# OPERATION

The BERETTA ES-100 semi-automatic shotgun is factory packed in two groups: stock assembly-frame-fore-end and barrel-bolt assembly. **1**
To perform a correct assembly of the components proceed in the following order:

- Check the barrel. Bore and cartridge chamber must be clean and free from obstructions.
- Check the magazine tube and the frame.
- Slide the fore-end out of the magazine tube.
- With your right hand hold the stock-frame assembly and with your left hold the barrel-receiver assembly.
  Slide the connecting rod into its proper seat; insert the barrel guide into the threaded pin placed at the end of the magazine tube making sure the tip of the connecting rod does not come off its seat.
  At this point push the receiver-barrel assembly firmly against the frame making sure the receiver is correctly seated. **2**
- Before assembling the fore-end make sure the bolt slide smoothly along the receiver.
- Screw the fore-end cap home clockwise, tighten firmly. **3**

**WARNING:** Pointing the gun in a safe direction holding the breech bolt opened for about 2 cm. pull the trigger to uncock the hammer.
This operation guarantees maximum safety because a visual inspection of the cartridge chamber can be performed.

## HOW TO LOAD THE FIREARM

**WARNING:** Always keep your fingers away from the trigger whenever you do not intend to fire.

First of all engage the safety by pushing the button located underneath the trigger guard until the red painted ring disappears. Using the cartridge lath button located on the right hand side of the frame lock the bolt in firing position. Turning the firearm upside down and pointing the barrel to the ground, with your left hand finger push the same button in order to lower the carrier during the loading of the magazine tube. **4, 5**

**WARNING:** It is extremely important that the cartridge is introduced inside the magazine tube far enough to be held in position by the cartridge latch.

Repeat this operation until the magazine tube has been filled up to its full capacity.

At this point the firearm cannot be fired unless a round is chambered.

This can be achieved by pulling the cocking handle all the way back and introducing a round in the ejection port.
The cartridge is then chambered releasing the bolt to the firing position. **6, 7**

**WARNING:** During this operation it is necessary to point the firearm in a safe direction.

Disengaging the safety the firearm is ready to fire.

## UNLOADING THE FIREARM

**WARNING:** The firearm is loaded and ready to fire. Keep your fingers away from the trigger whenever you do not intend to fire.

- Pointing the firearms in a safe direction, make sure the safety is engaged.

To unload the firearm use the following steps.

- Retract the breech bolt using the cocking handle: the chambered live round is this way extracted and ejected. **8**
- Using the cocking handle bring the bolt back to the firing position.

Turn the firearm upside down, push the cartridge latch from the inside with your right hand finger and lower the carrier at the same time; the cartridges will leave the magazine tube one by one. **9**

Pointing the firearm in a safe direction, and making sure the magazine tube is empty disengage the safety.
Keeping the breech bolt assembly opened to make sure the cartridge chamber is empty pull the trigger to uncock the hammer.

# DISASSEMBLY

## BARREL

- Unscrew the fore-end cap from the firearm.
- Slide fore-end off the magazine tube. **3**
- Holding the stock of the firearm on a table grab the barrel.
  With your right hand pull the cocking handle backwards and release it: this way the barrel is pushed foreward and it will slide off the holding pin. **19**
- The firearm is at this point separated in two groups.
  a) BARREL - BREECH BOLT - RECEIVER
  b) FRAME - TRIGGER GUARD - STOCK. **1**

## BREECH BOLT

- Holding the barrel-receiver group on a table retract the bolt all the way and remove the firing pin retaining pin. **10**
- Remove the firing pin. **11**
- At this point remove the cocking handle. **12**
- Disassemble the breech bolt from the receiver. **13**
- Disassemble the locking block. **14**
- Disassemble the locking head and the spring located between the head and the bolt. **15**

## TRIGGER GUARD

- To disassemble the trigger guard, drive the spring pin out of its seat using a punch and a little hammer. **16, 17**
- Holding the frame with your left hand the trigger guard with your right pull the two components apart. **18**
- At this point a thorough verification of the main components may be performed.
- Further disassembling of the firearm is not recommended unless carried out by a gunsmith.

# CLEANING AND OILING

When combustion residues, grease or dirt particles have accumulated in the action, it is recommended to disassemble, clean and lubricate the firearm. Cleaning and lubrication of the shotgun after use is the best guarantee for protection of the parts against corrosion deriving from combustion residues and from use of the firearm in humid and saline environments.

## BARREL

- After use, clean accurately the barrel bore by passing a swab through it to remove combustion residues. If necessary use a cleaning rod with bronze brush and/or a rag soaked in Beretta gun oil or other similar oil.

Clean accurately also the barrel tang locking shoulder.

- Pull a clean soft cloth through the barrel bore.
- Lightly lubricate the barrel bore by pulling through it a soft clean cloth dipped in Beretta gun oil or other similar oil.

## BREECH BOLT

- At the end of the hunting season or after a high number of shots (approximately 500) clean accurately these parts with a small brush and Beretta gun oil or other similar oil.
- Dry carefully with a soft cloth and lightly oil the parts with Beretta gun oil or an equivalent oil.

## TRIGGER GUARD

- Operate as described for the breech bolt assembly.

## RECEIVER

- Operate as described for the breech bolt assembly.

# MAGAZINE CAPACITY

The magazine tube capacity of the BERETTA ES100 (which has a three round capacity) has been limited to two rounds by the application of a plug in order to comply with the sporting gun laws in force in the countries belonging to the EEC. This plug reduces the fire capacity of the BERETTA ES100 to no more than three rounds (two in the tube, one in the chamber). In some areas hunting is allowed only with shotguns having a fire capacity of no more than two rounds. To use the BERETTA ES100 in these areas, therefore, it will be necessary to limit the magazine capacity to only one round. This operation must be carried out by a gunsmith.

# REASSEMBLY

## TRIGGER GUARD

- Operate in the reverse order to what is described in the chapter "DISASSEMBLY".

## BREECH BOLT

- Operate in the reverse order to what is described in the chapter "DISASSEMBLY".

## BARREL

- Operate as described in the chapter "ASSEMBLING THE BARREL".

# MOBILCHOKE® TUBES

**WARNING:** Beretta Mobilchoke® SP (Steel-Proof) screw-in choke tubes have been specially designed to take the punishment of non-toxic steel shot. For best results with steel shot, Beretta recommends a modified choke. Full choke constriction when using steel shot does not increase pattern density and often times distorts normal pattern density associated with lead. Remember that estandard old type Beretta Mobilchoke® tubes were not designed for steel shot. Before shooting steel shot cartridges check that the Beretta Mobilchoke® tubes are marked SP.

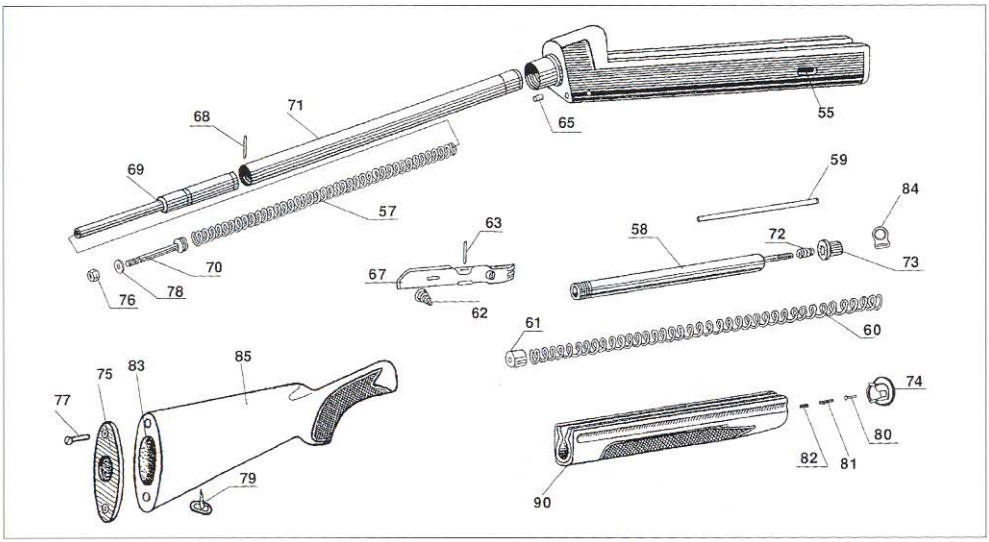
- Unscrew (anticlockwise) the choke using the multiple spanner or the Beretta knife (MODELS 2163, 2164, 2165, 2166). **22**
- Carefully clean the choke housing. If necessary, use a swab sprayed with Beretta gun oil or an equivalent oil.
- Insert the desired choke into the choke housing, checking that it is perfectly clean inside and outside. **20**
- Manually screw on (clockwise) the choke and tighten in with the multiple spanner or the Beretta special knife. **21**

**PLEASE NOTE:** Under safety conditions (cartridge chamber empty, magazine empty, receiver empty), check whether the choke has worked loose while hunting. Should this happen, the choke must be tightened to the end again.

**WARNING:** Remember that the use of a Mobilchoke® barrel without Mobilchoke® tube inserted is not allowed. Shooting without choke tube is dangerous and can damage the barrel internal screw thread irreparably.

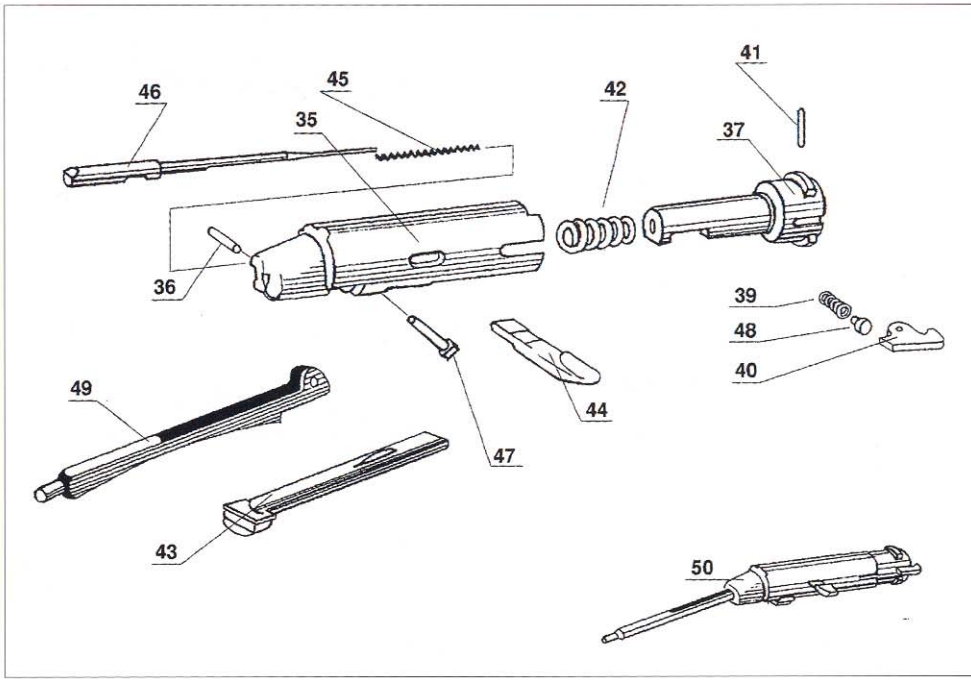
**WARNING:** The BERETTA ES100 semi-automatic shotgun operates correctly with 2 3/4" or 3" cartridges, loads from 32 (special 32 grams light loaded shothells excluded) to 56/57 grams (from 1 1/8 to ounces of shot).

# FRAME ASSEMBLY



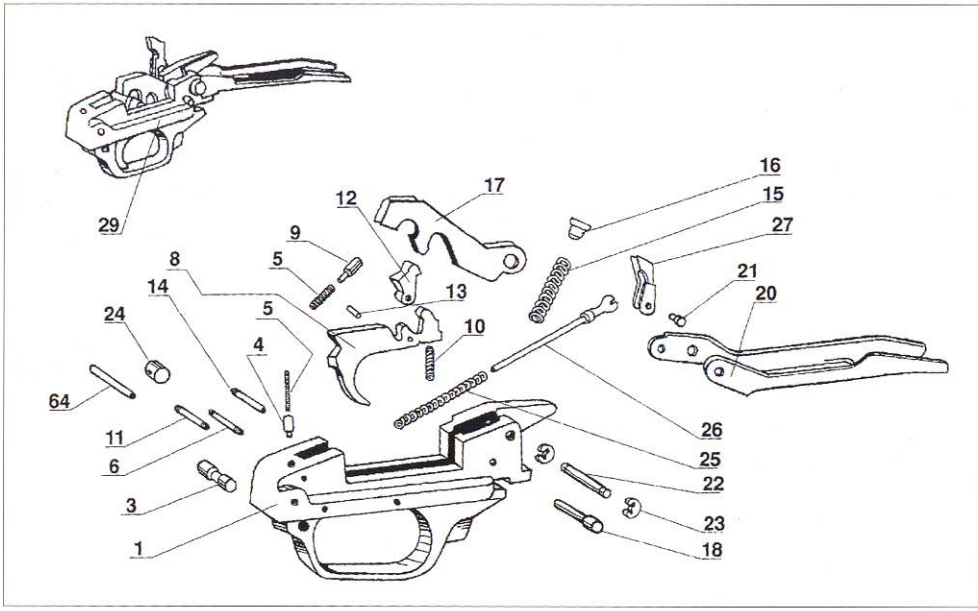

| | | | |
|---|---|---|---|
| 57 | 4100000302 | - | RECOIL SPRING |
| 58 | 3100050305 | - | MAGAZINE TUBE |
| 58 | 3110050305 | - | MAGAZINE TUBE, WITH REDUCER |
| 59 | 4100050345 | - | TWO ROUND MAGAZINE REDUCER |
| 60 | 4100000307 | - | MAGAZINE SPRING |
| 61 | 4100050309 | - | MAGAZINE FOLLOWER |
| 62 | 4100000311 | - | CARTRIDGE LATCH SPRING |
| 63 | 4100000313 | - | CARTRIDGE LATCH RETAINING PIN |
| 65 | 4100050330 | - | STOCK ALIGNEMENT PIN |
| 67 | 3100050338 | - | CARTRIDGE LATCH LEVER |
| 68 | 4100000339 | - | CONNECTING ROD SPRING RETAINING PIN |
| 69 | 4100050362 | - | RECOIL SPRING GUIDE |
| 70 | 4100000363 | - | STOCK RETAINING NUT SCREW |
| 71 | 4100050366 | - | CONNECTING ROD SPRING TUBE |
| 72 | 4100050320 | - | FORE-END CAP SPRING |
| 73 | 4110050809 | - | FORE-END CAP |
| 74 | 3100050354 | - | CAP RETAINING PIN BUSHING |
| 75 | 4110050608 | - | RECOIL PAD, PLASTIC |
| 75 | 4110050721 | - | RECOIL PAD, RUBBER |
| 76 | 4100000324 | - | STOCK RETAINING NUT |
| 77 | 4110050000 | - | RECOIL PAD RETAINING SCREW |
| 78 | 4100000329 | - | STOCK RETAINING SCREW WASHER |
| 79 | 3100050948 | - | STOCK SWIWEL |
| 80 | 4100000315 | - | MAGAZINE FOLLOWER PIN |
| 81 | 4100000316 | - | MAGAZINE FOLLOWER PIN SPRING |
| 82 | 4100000356 | - | CAP RETAINING PIN SCREW |
| 83 | 4110000903 | - | INSERT (SYNTHETIC STOCK) |
| 84 | 4110050306 | - | FRONT SLING SWIWEL |
| 85 | 3110450900 | - | SYNTHETIC STOCK |
| 85 | 4110400155 | - | STOCK, WOOD, WITHOUT STOCK SWIWEL |
| 85 | 3111350900 | - | STOCK, CAMO, ADVANTAGE WETLANDS |
| 90 | 3110450901 | - | FORE-END, SYNTHETIC |
| 90 | 3110450902 | - | FORE-END,SYNTHETIC, SLUG |
| 90 | 4110400321 | - | FORE-END, WOOD, WITHOUT CAP |
| 90 | 3111305901 | - | FORE-END, CAMO, ADVANTAGE WETLANDS |

# BREECH BOLT ASSEMBLY

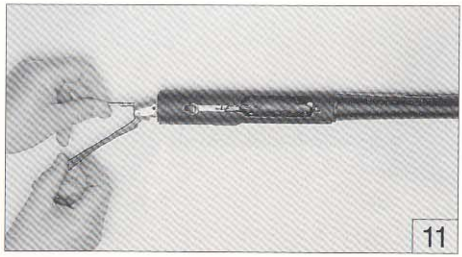


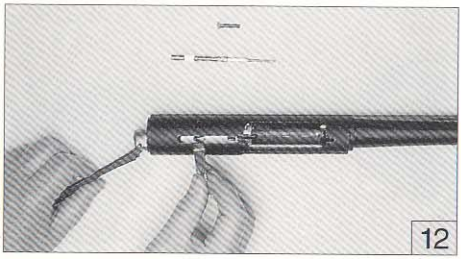

| | | | |
|---|---|---|---|
| 35 | 4110051200 | - | BREECH BOLT, BLUED |
| 35 | 4110050200 | - | BREECH BOLT, CHROMIUM PLATED |
| 36 | 4100050202 | - | CONNECTING ROD RETAINING PIN |
| 37 | 4110050203 | - | LOCKING HEAD |
| 39 | 4100000143 | - | EXTRACTOR SPRING |
| 40 | 4100050205 | - | EXTRACTOR |
| 41 | 4100000206 | - | EXTRACTOR SPRING PIN |
| 42 | 4100050207 | - | BREECH BOLT RECOIL SPRING |
| 43 | 4100050208 | - | LOCKING BLOCK |
| 44 | 4110050209 | - | COCKING HANDLE, CHROMIUM PLATED |
| 44 | 4110051209 | - | COCKING HANDLE, BLUED |
| 45 | 4100000210 | - | FIRING PIN SPRING |
| 46 | 4100050211 | - | FIRING PIN |
| 47 | 4100050212 | - | FIRING PIN RETAINING PIN |
| 48 | 4100050213 | - | EXTRACTOR SPRING RETAINING PIN |
| 49 | 4100050217 | - | CONNECTING ROD |
| 50 | 2110000200 | - | BREECH BOLT ASSY., CHROMIUM PLATED |
| 50 | 2110051200 | - | BREECH BOLT ASSY., BLUED |

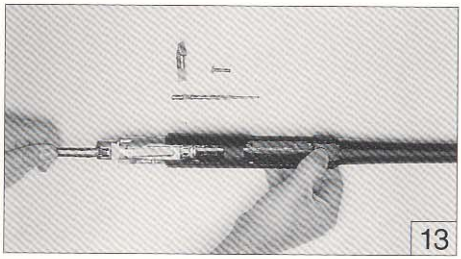
# TRIGGER PLATE GROUP

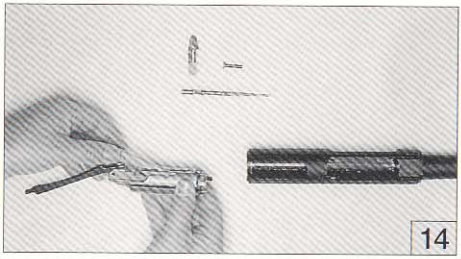


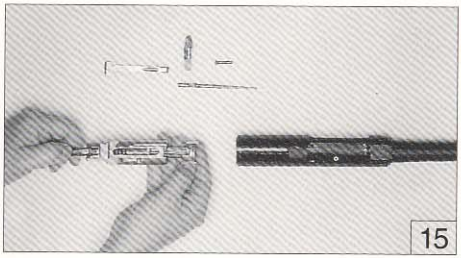

| | | | |
|---|---|---|---|
| 1 | 4100050100 | - | TRIGGER PLATE |
| 1 | 4100061100 | - | LEFT TRIGGER PLATE |
| 3 | 4100050101 | - | MANUAL SAFETY BUTTON |
| 4 | 4100050102 | - | SAFETY SPRING GUIDE PIN |
| 5 | 4100000103 | - | SAFETY SPRING |
| 6 | 4100050104 | - | SAFETY SPRING RETAINING PIN |
| 8 | 4110050105 | - | TRIGGER, CHROMIUM PLATED |
| 8 | 4110051105 | - | TRIGGER, BLUED |
| 8 | 4110061105 | - | LEFT TRIGGER |
| 9 | 4100050107 | - | SEAR SPRING GUIDE |
| 10 | 4100000108 | - | TRIGGER RETURNING SPRING |
| 11 | 4100050109 | - | TRIGGER TRAVEL CONTROL PIN |
| 12 | 4100050110 | - | SEAR |
| 13 | 4100050111 | - | SEAR PIN |
| 14 | 4100050112 | - | TRIGGER PIN |
| 15 | 4100000113 | - | HAMMER SPRING |
| 16 | 4100050114 | - | HAMMER SPRING GUIDE PIN |
| 17 | 4100050116 | - | HAMMER |
| 18 | 4100050117 | - | HAMMER PIN |
| 20 | 4110050118 | - | CARRIER, POLISHED |
| 20 | 4110051118 | - | CARRIER, BLACK |
| 21 | 4100050121 | - | CARRIER LEVER PIN |
| 22 | 4100050122 | - | CARRIER PIN |
| 23 | 4100000123 | - | CARRIER PIN SAFETY RING |
| 24 | 4100050124 | - | CARRIER SELECTING SPRING RETAINING BUTTON |
| 25 | 4100000125 | - | CARRIER SELECTING SPRING |
| 26 | 4100050126 | - | CARRIER LEVER GUIDE PIN |
| 27 | 3100050127 | - | CARRIER LEVER |
| 29 | 2110000100 | - | TRIGGER PLATE GROUP, CHROMIUM PLATED |
| 29 | 2110051100 | - | TRIGGER PLATE GROUP, BLUED |
| 29 | 2110061100 | - | LEFT TRIGGER PLATE GROUP |
| 64 | 4100000314 | - | TRIGGER PLATE RETAINING PIN |

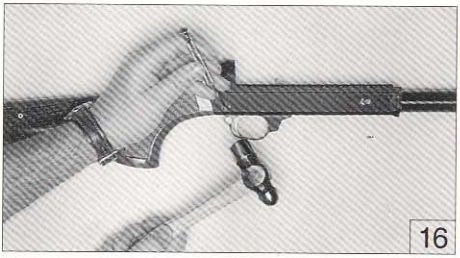

11

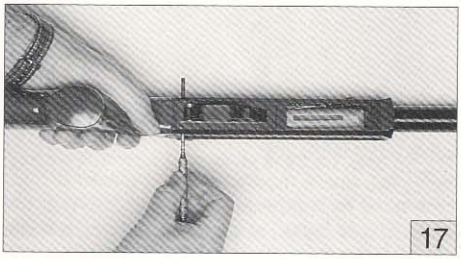

12

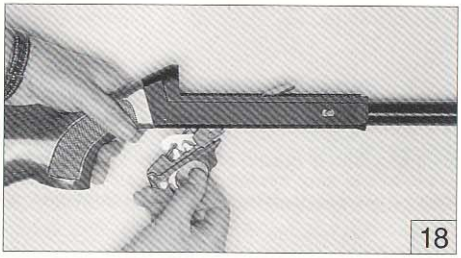

13


14

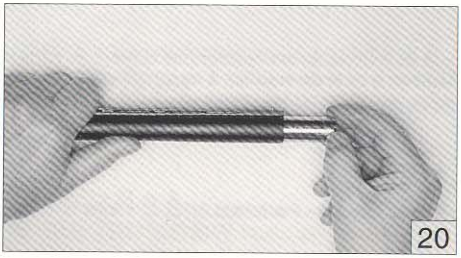

15


16


17

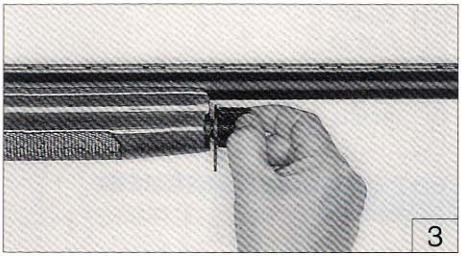

18

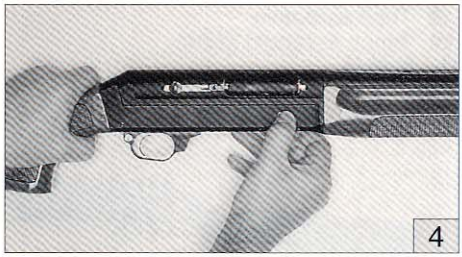
19

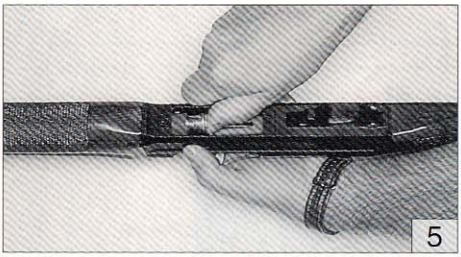

20

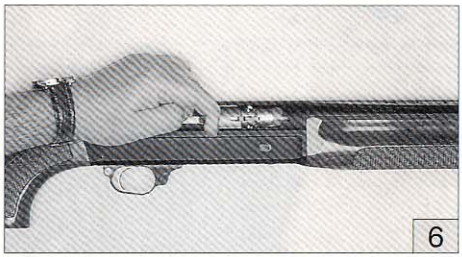
1

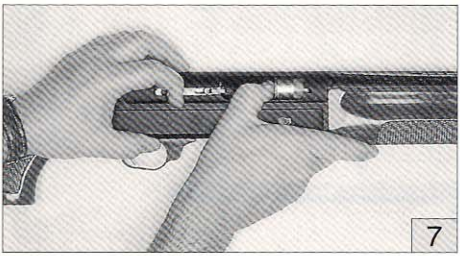
2

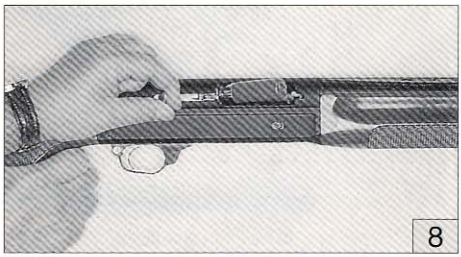

3

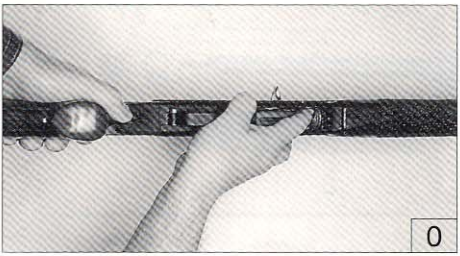

4

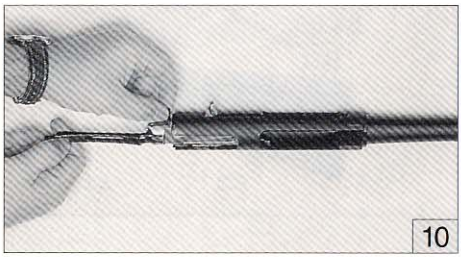

5

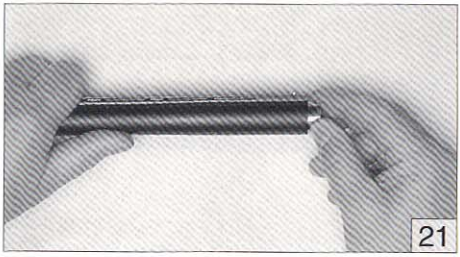

6

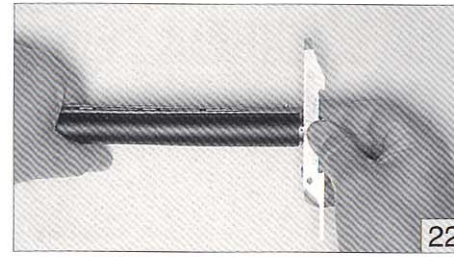

7


8


0


10




Le ilustrazioni di questo opuscolo si inintendono fornite a titolo indicativo. La Casa si riserva pertanto il diritto di apportare ai suoi modelli, in qualsiasi momento e denza preavviso, quelle midifiche che ritenesse utili per migliorare o per qualasigenza di carattere costruttivo e commerciale.

The illustrations and descriptions given this brochure are intended as a general guide only, and must not be taken as binding. The Company, therefore, reserves the ring to make, at any moment and without notice, any changes it thinks necessary to improve its models or to meet any requirements of manufacturing or commercial nature.

Les illustrations et les descritions contenues dans ce prospectus ne sont données qu'à titre indicatif. La Maison se réserve le droit de modifier, à tout moment et sans préavis, ses modèles pour les améliorer ou pour n'importe quelle exigence de caractère constructif et commercial.

Printed in Spain - Impresión, S.C. • Vitoria-Gasteiz.